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The Second Best Thing About Payday

nih record

ABOVE • *NIH and the chamber of secrets? Where on campus can you find a room with copper-coated walls, and why? See story below.*

features

departments

When Too Much Stuff Really Is Too Much

Hoarding Disorder Can Have Dangerous Ramifications

By Valerie Lambros

There are probably many of us, especially in the wake of the holidays, who have homes or offices that are less neat than we'd like them to be. Maybe there are piles of papers, files or books that we put off sorting because we've grown accustomed to them, and they don't interfere with our daily routines.

Dr. Randy Frost of Smith College

This tendency is common and rarely cause for concern. Unfortunately, for some people the accumulation of stuff can develop into a more advanced state of clutter, turning a few piles into roomfuls of belongings that get in the way of living life. These people suffer from hoarding.

Defined as the acquisition of, and failure to discard, a large number of possessions that invade living spaces in such a way that people can no longer live normally in them, hoarding was the subject of a recent NIMH Innovation Speaker Series lecture at the Neuroscience Center. Three visiting researchers presented what they've learned about the disorder and called for further study.

SEE **HOARDING,** PAGE 6

Kaplan Joins NIH As OBSSR Director

Dr. Robert M. Kaplan will join NIH Feb. 1 as director of the Office of Behavioral and Social Sciences Research (OBSSR) and NIH associate director for behavioral and social sciences research.

"NIH will benefit from Dr. Kaplan's longstanding proven expertise in high priority behavioral health areas such as tobacco-induced lung disease," said NIH director Dr. Francis Collins, who announced the appointment last July.

OBSSR focuses on how behavioral and social factors often influence illness and health. The office stimulates and integrates behavioral and social sciences research across the institutes and centers to improve the understanding, treatment and prevention of disease.

SEE **KAPLAN,** PAGE 4

Half a Century Ago

Alumni Recall Installation of 'Whole Body Counter' Room

By Ellis S. Kempner and Laurence R. Draper

In the 1950's, radioisotopes were becoming widely used to solve major biological problems. Although radiation detection methods were primitive, incredible discoveries were being made. At NIH, Dr. Howard Andrews, chief of the Radiation Branch, NCI, discussed giving radioisotopes to humans and then detecting their presence throughout the whole human body. Technically, this was an ambitious undertaking. NIH decided to build a "whole body counter" room in the 3rd sub-basement (B3) of Bldg. 10.

The location was chosen because it was likely to have a low background radiation level. The walls and ceiling were thick concrete under at least 12 feet of dirt. Nevertheless, Andrews wanted to have the walls and ceiling further thickened with radiation-absorbing material.

Steel was the most cost-effective materi-

SEE **BODY COUNTER,** PAGE 8

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briefs

STEP Forum on Translating Research Advances

The staff training in extramural programs (STEP) committee will present a Science in the Public Health presentation on the topic "Translating Research Advances for Health Care Providers and Patients: The Knowledge-to-Action Process," on Tuesday, Feb. 8, from 8:30 a.m. to 12:30 p.m. in Kirschstein Auditorium, Bldg. 45.

The clinical studies are done, the data are in—but why does it take so many years to translate clinical research into practice? Proven clinical strategies may not work in the community setting or may be slowly adopted by health care professionals and recipients. How do we move evidence-based clinical knowledge more effectively into public health and clinical community settings? This forum will explore the challenges and opportunities in implementation and dissemination of clinical research outcomes.

Human Microbiome Congress Set

The International Human Microbiome Congress will be held Mar. 9-11 at the Hyatt Regency Vancouver, Canada. A diverse community of international researchers from the medical, microbial and computational fields will discuss the complex relationships of the microbiome with human health and disease. Conference topics include: human microbiome in human health and disease; animal microbiomes; environmental and quantitative metagenomics; ethical, legal and social implications of human microbiome studies; and new technologies and computational tools for the study of the human microbiome. For more information, visit http://guest.cvent.com/d/vdq56d.

Registration Open for AIDS-Related Structural Biology Meeting

The development of new drugs to treat and prevent HIV/AIDS depends on understanding the basic biology of how the virus infects human cells. For 25 years, researchers supported through a special NIGMS program have been generating the structures of key viral proteins, revealing important insights into the virus's mechanisms and, more importantly, its Achilles' heels.

To celebrate this silver anniversary, NIGMS is hosting a meeting Mar. 28-30 that brings together researchers involved in the effort as well as the broader scientific community to reflect on past accomplishments, describe current advances and develop ideas for future AIDS-related structural biology efforts. Plenary sessions will cover the HIV life cycle, host-pathogen interactions, imaging, latency, antibody recognition and structure-based drug design and resistance. The first 2 days include afternoon poster sessions and breakout discussion groups.

The meeting will take place in Kirschstein Auditorium, Bldg. 45. It is free and open to the public, but advance registration is required. For more details about the agenda, speakers and registration, visit http://meetings.nigms.nih.gov/index.cfm?event=home&ID=10905.

Nutrition Labeling Comes to Eurest Cafés

Starting Jan. 4, the Eurest Cafés at NIH began providing nutrition information on menu items including the deli, salad bar, grill and all Balanced Choices features. The nutrition information signs and pamphlets are located in each of the cafés, as well as online. The program was developed through menu planning and a software system using the USDA National Nutrient Database, along with manufacturer nutrient analysis, to provide nutrition information based on portion sizes. The new system may affect the portion size of some items. If the portion size is reduced for an item, the price will also be lowered. Patrons may participate in a Nutrition Labeling Launch in all Eurest Cafés, with samples, raffles, door prizes and more. If you have any questions or comments, contact John Crawford at crawfj@mail.nih.gov or phone (301) 402-8180.

NCI Symposium on Biospecimen Research

Registration is now open for the National Cancer Institute's annual Biospecimen Research Network Symposium, "Advancing Cancer Research Through Biospecimen Science," Mar. 28-29 at the Bethesda North Marriott Hotel & Conference Center. Hosted by NCI's Office of Biorepositories and Biospecimen Research, the meeting will bring together leaders in the fields of biospecimen research, genomics, proteomics, oncology, pathology, biobanking, hospital administration and pharmaceutics as well as patient advocates. For information about registration, speakers, topics and participation, visit http://brnsymposium.com.

Volunteer to Teach English

The Volunteer Program for English Proficiency at NIH is seeking new volunteer English tutors. Classes are held 4 days per week from 11:30 a.m. to 12:30 p.m. in Bldgs. 31 and 10. Volunteer tutors do not need to have teaching experience or know a second language, though fluency in written and spoken English is required. All teaching materials and training will be provided. Tutors are asked to make a commitment to teach the students (5-10 adult learners per class) once every week. If you are interested, or would like to learn more, contact Maria G. Hessie (mhessie@niaid.nih.gov).

Brisk Walking Reduces Risk of Breast Cancer, NCI-Funded Study Indicates

By Jan Ehrman

Lace up those Nikes, ladies—it's never too late to get on the right track in the quest to deter a major killer.

Findings from a long-term National Cancer Institute-supported study of middle-aged women strongly suggest that brisk walking for nearly an hour most days of the week appreciably reduces the risk of breast cancer.

Prevention and early detection of breast cancer are paramount in the fight against the disease, which will afflict one in 8 women during their lifetime. Around 200,000 cases of breast cancer were diagnosed in 2010 and of these, nearly 40,000 women will succumb to the malady, NCI estimates. Breast cancer is the second leading cause of cancer mortality in women.

While factors such as proper nutrition, exercise and a healthy lifestyle are thought to possibly minimize the risk of developing breast cancer, little is known about how much exercise or what types of activity have the greatest effect. Also, since most cases of breast cancer occur in middle to later life, it is critical to know how exercise affects breast cancer for postmenopausal women. Little data existed prior to this analysis.

Walking has long been considered both beneficial and safe for almost all men and women. The risks are minimal and, when performed regularly, physical activity is thought to confer multiple health benefits including lowering risk of heart disease and stroke, maintenance of blood pressure, weight control, bone strengthening, improved insulin sensitivity, reduction of anxiety/stress, heightened mood and perhaps even a reduced risk of cognitive decline and dementia. But what about its role in preventing or lessening risk of breast cancer? The findings from this longitudinal protocol, where walking was the primary activity, are noteworthy.

Dr. A. Heather Eliassen and her colleagues from Brigham and Women's Hospital and Harvard Medical School analyzed two decades of self-reported data from questionnaires filled out by more than 95,000 postmenopausal women participating in the Nurses Health Study, a long-running protocol that began in 1976. Women were between ages 30 and 55 when the study began. Of that number, nearly 4,800 developed breast cancer.

"The overall findings on the link between breast cancer risk and walking were really very encouraging," Eliassen said. "What we found was that women who walked briskly for about an hour on most days of the week were able to reduce their risk of breast cancer by some 15 percent. And even women who were less active until menopause, but began walking around mid-life, lessened their risk by about 10 percent. This is a very notable finding."

She explained that her team was fortunate in that many participants in the trial were walkers. Meanwhile, women who ran, played tennis or engaged in other types of physical activity also saw some decreases in breast cancer risk, but the reduced risk was not as robust as that experienced by fervent walkers, according to the analysis.

Dr. A. Heather Eliassen said, "The overall findings on the link between breast cancer risk and walking were really very encouraging."

Eliassen pointed out that while many or most risk factors for breast cancer (e.g., family history) are not modifiable, "physical activity is certainly something we can all do, even in mid-life if you've never been active before."

With walking, she added, there's no need to join a gym or buy special equipment. "In this day and age when breast cancer is on the minds of so many women, we find that physical activity can have an impact on risk," Eliassen said, "and I find that quite heartening."

Although the underlying mechanism for the reduced breast cancer risk from walking is not fully understood, one leading theory is that walking and exercise in general reduce the amount of circulating blood estrogen, which in turn may discourage tumor formation. In addition, activity helps with weight control; less body fat may also inhibit tumor growth. The role of insulin sensitivity—how the body responds to the rise and fall of blood glucose—may be another factor. Exercise has been shown to improve this metabolic feature and could affect the etiology of breast cancer, experts believe.

Eliassen noted that the most active, regular walkers analyzed in the Nurses Health Study were strolling at a rate of about 3 miles per hour.

The findings were reported in the Oct. 25, 2010, issue of the *Archives of Internal Medicine*.

Hamlet Joins Staff at NIGMS

Dr. Michelle R.J. Hamlet recently joined NIGMS as a program director in the Division of Minority Opportunities in Research, where she will be involved in administering the Bridges to the Future programs. Before joining NIGMS, Hamlet served as the first training program coordinator in the NHGRI Intramural Training Office. She earned a B.S. in language arts/French from Georgetown University and a Ph.D. in cell and developmental biology from Harvard University. Hamlet completed a postdoctoral fellowship at St. Jude Children's Research Hospital in Memphis.

KAPLAN

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Kaplan comes to NIH from the University of California, Los Angeles, where he was distinguished professor in the department of health services at the School of Public Health and the department of medicine at the David Geffen School of Medicine. He has also served as principal investigator of the UCLA/RAND CDC Prevention Research Center and director of the UCLA/RAND Health Services Research training program.

Prior to his UCLA appointment, Kaplan was professor and chair of the department of family and preventive medicine at the University of California, San Diego School of Medicine.

Kaplan earned an M.A. and Ph.D. in psychology at the University of California, Riverside. His research interests include behavioral medicine, health services research, health outcome measurement and multivariate data analysis. In December 2010, he completed his term as editor-in-chief of the journal *Health Psychology*.

He received the American Psychological Association division of health psychology's annual award for outstanding scientific contribution as a junior scholar in 1987 and as a senior scholar in 2001. He also received the Society of Behavioral Medicine's National Leadership Award in 2004 and Distinguished Research Mentor Award in 2006. He is a member of the Institute of Medicine of the National Academy of Sciences.

Kaplan becomes the first permanent OBSSR director since Dr. David Abrams left NIH in 2008 after 3 years in the post. The office had been under the acting directorship of Dr. Christine Bachrach and then Dr. Deborah Olster.

Management Intern Program Is Now Recruiting

Are you interested in a career transition or fast track at NIH? The NIH Training Center announces a new recruitment season for management interns. The Management Intern Program has been developing highly motivated NIH employees for more than 50 years. The 2-year career development program gives employees the opportunity to take rotations of 3 to 4 months in various career tracks. Graduates move into new career paths; many former interns have gone on to hold high-level managerial positions at NIH.

MIs gain valuable experience and insight into the inner workings of NIH. Career track options include budget and finance, program and management analysis, grants management, contracts/procurement, information technology, human resources and general administration, as well as other electives such as science policy and communications. Management interns come from both the administrative and scientific fields, from travel planners to biologists. The MI Program job vacancy announcement opens on Feb. 25 and closes on Mar. 25. Current GS-7 through GS-12 NIH employees are invited to apply. For program FAQs, details and eligibility, the MI hiring process and application information, visit www.jobs.nih.gov/intern/mi.html.

Information Sessions

To learn more, attend one of the upcoming information sessions, all held from noon-1 p.m. Registration is not necessary, but appreciated. Send an email to MI_Info@mail.nih.gov. to specify which session you plan to attend:

Tuesday, Feb. 8, Natcher Balcony A

*Monday, Feb. 14, Rockledge II 9112/9116**

*Thursday, Mar. 3, Bldg. 10, Lipsett Amphitheater***

*NIEHS employees interested in calling in to the Feb. 14 session can write MI_Info@mail.nih.gov to register.

**This event will be viewable online afterward via WebConnect.

Individuals who need reasonable accommodation to participate in this program should call the NIH Training Center at (301) 496-6211, TTY (301) 594-2696 or the Federal Relay (1-800-877-8339) at least 5 days before the event.

Focus on Understanding, Prevention

NICHD's Maholmes Reviews Domestic Violence Research Effort

Every year, as many as 4 million women and more than 3 million men in the United States are victims of domestic violence, said Dr. Valerie Maholmes, director of the Social and Affective Development/Child Maltreatment and Violence Program at NICHD. At the recent "HHS Striving for Healthy Employees" event recognizing Domestic Violence Awareness Month, she highlighted NIH-supported research efforts on studying, understanding and ultimately preventing this public health challenge.

Dr. Valerie Maholmes

In their lifetimes, one in three women and one in every 13 men will experience intimate partner violence, Maholmes said, with young women ages 16 to 24 experiencing the highest rates of violence within relationships.

"Many of the questions, interventions and challenges that we want to put forward to address domestic violence cannot be answered through a single discipline alone or through the efforts of a single institute alone," she said.

The event was sponsored by the HHS steering committee on violence against women and included an opening address by HHS assistant secretary for health Dr. Howard Koh. Citing 2005 statistics of 15,000 deaths annually from intimate partner violence (80 percent women and 20 percent men), he called for improved data and reporting on the health effects of domestic violence in addition to increased awareness and prevention efforts.

"We work collaboratively across NIH institutes to address these compelling health problems," Maholmes said. As an example, she cited the efforts of the National Institute on Aging, which supports research related to violence, abuse and mistreatment as experienced by older Americans, especially women.

Similarly, NICHD funds a broad spectrum of studies including violence and the effects on women's reproductive health, violence within marriage, causes and consequences of family violence and how family violence affects children. As an example of the circumstances that might trigger violence against women, Maholmes described an NICHD-supported study that looked at domestic violence associated with football games. Researchers reviewed calls to police reporting men's assaults on their partners and discovered that calls rose 10 percent in areas where the local team was favored to win, but ultimately lost. There was a noted spike in reports of violence when the home team lost compared to when the team didn't have a game, as well as when losses were judged to be emotionally charged—when teams were in playoff contention or had experienced an upset loss to a rival. In addition, the timing of calls indicated that violence occurred within 2 hours of a game.

As an example of the circumstances that might trigger violence against women, Maholmes described an NICHD-supported study that looked at domestic violence associated with football games.

Maholmes added that a large body of research indicates that alcohol use is related to family violence. The National Institute on Alcohol Abuse and Alcoholism supports studies on alcohol-related violence against women. Maholmes noted that NIAAA researchers investigate issues such as the role alcohol plays in violence perpetrated on college campuses and in incapacitated rape, in which the victim has consumed so much alcohol that she is unable to resist attack.

Similarly, the National Institute on Drug Abuse funds research to improve the understanding of the health and social consequences of drug use and violence against women and girls. Researchers examine such issues as exposure to violence and abuse as risk factors for later drug abuse; drug use as a risk factor for violence and abuse; violence, abuse and trauma; and the risk of intimate partner violence among substance-abusing women. The National Institute of Mental Health supports studies on the mental health consequences of trauma. Maholmes pointed out that NIMH funded more than 40 research and training grants in fiscal year 2009 that looked at psychiatric disorders in the context of violence against women.

Recent research supported by the National Institute of Nursing Research included a test of a community-oriented intervention among resettled refugee women who experienced war trauma. Other researchers have assessed the long-term behavioral and physiological outcomes of women who experienced post-traumatic stress disorder from domestic violence.

To view the archived webcast of the event, visit www.womenshealth.gov/violence/programs/#october.

HOARDING

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Dr. David Tolin, director of the Anxiety Disorders Center at the Institute of Living

Dr. Gail Steketee, dean and professor at Boston University's School of Social Work

PHOTOS: ERNIE BRANSON

Dr. Randy Frost of Smith College explained just how serious and widespread the condition is. Hoarding is estimated to affect between 2 and 5 percent of the population and is more prevalent in older folks. Scientists have found that the onset of hoarding typically occurs between 11 and 15 years of age, but does not reach significant levels until later in life.

"Hoarders can collect all measure of things, and many times doorways will be blocked, windows will be blocked. Piles of papers near a stove, for instance, are a fire hazard," he said. "This condition can be life-threatening, particularly if someone had to get out of the house quickly."

A frequent feature of these cluttered homes, he said, is the presence of what some call "goat paths," narrow aisles that navigate through the mountains of stuff. An inability to clean, dust and vacuum can lead family members to suffer acutely from dust and mold allergies. Local health services and family protective services can step in and remove people and pets from the home.

Most people might think the easy fix to hoarding is to have someone come in and throw everything out, but anyone who's watched one of the popular television programs dedicated to this topic knows it's not that simple; the people who hoard don't often see the problem. There is resistance, denial and bargaining. The process frequently becomes emotional, with tears and anger a typical outcome.

"When others clean up after them, they feel as though they are losing things of value, even parts of themselves. One person said, 'If I throw away too much, there will be nothing left of me,'" Frost said. "After one woman had others come into her home to clean up and throw things away, she said, 'I feel as though I've been raped.'"

That statement may seem extreme to many unfamiliar with the disorder, but the revelation comes as little surprise to researchers working to unravel this extraordinary attachment to material things. People who hoard can, and often do, review their possessions by going through piled items (an expired flyer for a tire sale, a brochure about a resort they can't afford to visit, a phone number jotted on the back of an envelope that lacks a name to go with it). They rarely discard anything and instead shuffle items within the pile, a process called "churning."

While hoarding does share some traits with obsessive-compulsive disorder, the overlap isn't exact and many people who hoard display characteristics that differ from OCD. For example, researchers have reported that while there are few differences in memory or problem-solving between hoarders and control subjects, hoarders often performed much worse on matters relating to attention span and decision-making. Another area, insight, or the subject's self-awareness, was wildly variable.

"We can rate their insight from excellent to delusional," said Dr. David Tolin, director of the Anxiety Disorders Center at the Institute of Living. His research suggests that there may be a neurological aspect to the condition that impairs cognitive processing, but said more study is needed.

Aside from the obvious threats to life and limb that hoarding poses, perhaps most troubling to researchers and mental health clinicians is the fact that it has yet to be formally recognized as a psychiatric condition requiring intervention. Because hoarding is mostly hidden behind closed doors, few are aware of the condition's prevalence. Little attention has been given to the disorder until recently.

Hoarding is not currently included in the Diagnostic and Statistical Manual of Mental Disorders published by the American Psychiatric Association, but there is talk of adding it to the latest edition of the book. The inclusion of hoarding might open more doors to study the disorder, scientists say.

Treatments for the condition are lengthy and difficult, the scientists said.

"We face a great deal of treatment refusal and dropout, low insight into the problem and limited cooperation during treatment," said Dr. Gail Steketee, dean and professor at Boston University's School of Social Work who also spoke at the lecture. Frost and Steketee have written a book called *Stuff: Compulsive Hoarding and the Meaning of Things* as well as a clinician therapy guide and client manual. "There are a lot of non-voluntary clients who may require community intervention."

Researchers have thus far found little help from combination therapies adapted from current OCD treatments. However, thanks to an NIMH study, it appears there is hope in using cognitive behavioral therapy (CBT), particularly when it includes specialized components designed for hoarding such as motivational interviewing, organizing and decision skills training and practice discarding and not acquiring.

"While standard therapy doesn't work, specialized CBT makes a dent," Steketee said. "And group treatments provide [patients] with an instant, built-in support system. The therapy turns into something they look forward to."

On hand at the recent ORWH forum were (from l) Dr. Duane Alexander of the Fogarty International Center, Dr. Sara Goldkind and Karen Feibus, both of FDA.

ORWH Forum Examines Clinical Research, Pregnancy

"Pregnant women get ill, sick women get pregnant," admonished a recent editorial in *Nature*. Clinicians have meager evidence on which to base treatment of pregnant women. Clinical research investigates mechanisms of human disease and tests therapeutic interventions. However, pregnant women are often excluded from clinical studies and few studies are designed to address health concerns and questions relevant to pregnant women. This results in a lack of evidence to inform health care and treatment decisions.

The Office of Research on Women's Health recently convened a research forum to address the ethical/Institutional Review Board and recruitment issues that investigators face in the process of conceptualizing, initiating and conducting clinical research studies enrolling pregnant women. ORWH director Dr. Vivian Pinn and NICHD director Dr. Alan Guttmacher opened the forum by highlighting the need to address research to the health concerns of pregnant women.

The forum challenged the audience to increase the knowledge base from clinical research on pregnant women, to conduct appropriate scientifically and ethically designed clinical research and to address gaps in knowledge.

Medical ethicists, clinical investigators and academic researchers and those with an interest in clinical research in women presented information on the ethics of balancing risks and benefits, risk perception and risk reasoning. Additionally, presenters shared examples of challenges and strategies for overcoming barriers to clinical research on the health of pregnant women.

There were examples of maternal-fetal medicine research, research on chronic or infectious diseases and on evaluating preventive measures such as vaccines. The challenges to successful enrollment of pregnant women in various countries, in prospective registries and in randomized trials were described by the investigators who conquered those challenges.

Cosponsors of the forum included NICHD, NIAID, NIDA, OBSSR, OAR and the FDA Office of Women's Health.

NINDS Lab Wins Regional 2010 Technology Transfer Award

By Shannon E. Garnett

NINDS investigator Dr. Zhengping Zhuang (l), NCI/NINDS tech transfer specialist Dr. Martha Lubet and Lixte president Dr. John Kovach celebrate a tech transfer award.

The molecular pathogenesis unit of the NINDS Surgical Neurology Branch recently won the 2010 Mid-Atlantic Region Award of Excellence in Technology Transfer. Sponsored by the Federal Laboratory Consortium (FLC), the award honors outstanding work in transferring federally developed technology to the marketplace. FLC is a nationwide network of federal laboratories dedicated to integrating research conducted in federal labs into the mainstream of the U.S. economy.

"This award recognizes the ability of federal research laboratories to work together with commercial companies to develop a novel therapeutic agent," said Dr. Zhengping Zhuang, unit head. "It also shows that an NIH intramural laboratory, with the mission of developing new, innovative science into treatments, is most successful when teamed with a dedicated commercial partner."

The winning project, "Identification and Development of Agents to Treat Glioblastoma and Other Over-exposing Nuclear Receptor CoRepressor (N-CoR)," is a joint NINDS venture with Dr. John Kovach, academic oncologist, research scientist and founder of Lixte Biotechnology Holdings, Inc. The goal of the project is to develop a drug that effectively will treat patients with glioblastoma and other cancers.

Glioblastoma is the most common and aggressive form of adult brain cancer. According to Zhuang, treatment for glioblastoma is challenging because the cancer is not as sensitive to many standard anti-cancer drugs as some of the more responsive types, such as lymphomas and leukemias. In addition, most drugs cannot enter the brain because they are blocked by the protective blood-brain barrier.

Zhuang and his colleagues discovered that several kinds of cancer, including glioblastomas, produce greater amounts of the protein N-CoR than their normal (noncancerous) cell counterparts. The scientists showed that certain well-known biological compounds diminished expression of N-CoR in cell lines of these cancers. N-CoR controls cell growth and maturation by regulating the activity of several genes.

Zhuang discussed this discovery with Kovach shortly before Kovach decided to start a new biotechnology company, Lixte, to look for biomarkers characteristic of specific types of human cancer as clues for developing new diagnostic tests and as molecular targets for new cancer drug discovery.

After the company was founded, the NINDS Technology Transfer Office worked with Zhuang, his branch chief Dr. Russell Lonser and Lixte in developing a cooperative research and development agreement to identify agents that target the N-CoR pathway. CRADAs allow federal agencies to collaborate with outside organizations to commercialize new technology, thereby making it available to the public.

Lixte developed a series of novel compounds expected to influence N-CoR based on Zhuang's observations. The compounds were screened for anti-cancer activity. Several of them were shown to inhibit human tumor cells growing in cell culture. Two of them—called LB-100 and LB-102—proved effective in inhibiting growth of human glioblastoma cells in a mouse model. Subsequent studies indicated that both compounds are more effective when used in combination with other, standard cancer chemotherapies.

Dr. Martha Lubet of the NCI Competitive Service Center represented the NINDS Technology Transfer Office in administration of the CRADA. Licensing of the technology was handled by Mojdeh Bahar and Dr. Surekha Vathyam of the NIH Office of Technology Transfer.

BODY COUNTER

CONTINUED FROM PAGE 1

***Above, l**:*
The metal trays built to handle thick copper electrical conduits still hang from the ceiling, although they are now empty and lead nowhere.

***Above, r**:*
The doors to the two chambers are 7 inches thick of solid steel and weigh about 6,800 lbs. (slightly over 3 tons) each, said Randy Davis, facility operations specialist for the CRC, who stands in the doorway of the crystal counter room.

***Below**:*
Many leading medical facilities in the early 1960s had two complementary counter modes: plastic scintillation and crystal; NIH was no exception. The chambers, each 8 feet wide, 8 feet tall and 12 feet deep, were built by Dixie Manufacturing Co. Inc. of Baltimore, a firm that no longer exists.

PHOTOS: RICH MCMANUS

al, but all steel that was commercially available was created after World War II and was therefore exposed to the atmosphere after the atomic bomb explosions. Andrews learned that the U.S. Navy was dismantling old pre-WW II ships and it was arranged to have slabs of the hull steel (over 6 inches thick) brought to NIH to clad the room.

Extensive architectural plans were drawn up for the major renovation needed to build the room. Andrews was asked for his input throughout. Designers wanted to know how much electrical power he would need for the room since a great deal of electronic equipment was going to be installed. However, it was just at this time that vacuum tubes were being replaced by transistors; all of the new equipment required far less power than previously. So little, in fact, that Andrews guessed that 10 amperes would be more than enough. But to be on the safe side, he requested 20 amperes.

The NIH architects who were preparing the plans to send out for bid felt that the scientists always underestimated their needs and would later demand increases. So they decided to make it 50 amperes. In the meantime, Andrews decided to take a sabbatical in Puerto Rico for a year while contract-bidding, award and construction were taking place. By the time he returned, the work would be mostly done.

The steel plates arrived at a Bldg. 10 loading platform near a freight elevator. USN markings were still visible on some slabs. But the weight of the plates exceeded the limit of the elevator lift cables. The solution? Raise the elevator cab to a higher floor and then lower the plates by crane down through the now-empty shaft to B3.

During the initial construction, one or two bare light bulbs dangled from the ceiling of the dimly lit room. Workers trafficked back and forth in the corridor with various pieces of equipment. Soon there was a lot of noise from swearing workmen as they struggled with steel plates, moving them around in a space not much larger than the chamber itself. There were jerry-rigged A-frame hoists with chain-hung pulleys used to manipulate the slabs. It was like building a house from the inside out. The top of the steel vaults was covered completely with many centimeters of borax (like bags of cement) used to absorb neutrons.

As the room was being remodeled, long metal trays (to accommodate electrical conduits) were hung from the ceiling along the outside hallways; they were almost a foot wide, hanging about a foot below the ceiling. The trays ran down the hallway, turning to adjacent hallways and eventually disappearing into a concrete wall. Sometime later, several thick copper rods, each several inches across, were placed in the trays. On his return from Puerto Rico, Andrews was perplexed when he saw the copper rods. The contract managers told him the rods were to carry electrical power to the whole body counter room.

It seems that the final contract that went out on bid had the 50 amperes increased to 70 amperes, but a misprint changed it to 700 amperes. But then the contract managers discovered that the rods were only rated for 600 amperes, so the contractor was forced to change them to those rated for 700. Otherwise, Andrews was told, the contractor could claim it was a change in the contract and demand further payment. Copper was relatively cheap in those days.

By early 1962, the room was finished and in use.

Until the 1980's, the Clinical Center's nuclear medicine department (NMD) used the facility for radiation biology studies and to monitor NIH employees who were using certain radioisotopes. It was then detailed to the Radiation Safety Branch to continue detecting any contamination of NIH researchers.

Above, the crystal counter room still has copper cladding throughout. Each panel is almost a quarter-inch thick. Davis estimates each one weighs 40 pounds. The light fixtures are the originals. Below, the door hinges are substantial, with rivals few places nowadays except for bank vaults.

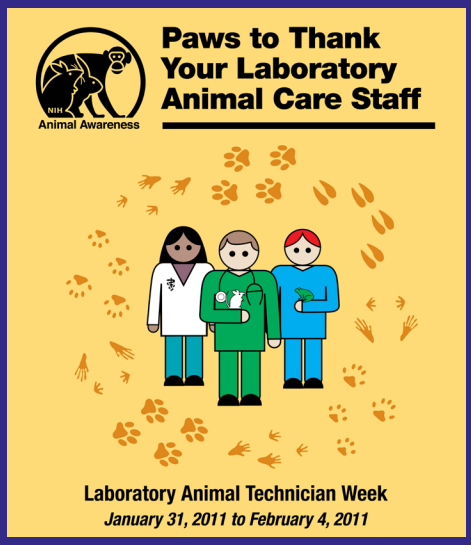
In the early 1990's, the room reverted to NMD for storage of patient records and surplus equipment. Later the area was remodeled by the imaging physics section for small animal PET and single-photon instrumentation projects. In 2004, the CC turned over Rm. B3B25 to NIBIB, whose Laboratory of Molecular Imaging and Nanomedicine now occupies the space.

But the steel plates remain, still protecting the area from enemy gunfire.

(Editor's note: Kempner was at NIH from 1958 to 2006 in NIAMS as a section chief. Draper was at NCI from 1960 to 1968.)

Members of the NIEHS veterinary medicine section include (from l) David Goulding, Danielle Waxer, Terry Blankenship-Paris, Page Myers, Cathy Oakley, Sandy Hackney and James Clark. Their ideas resulted in the 2011 Lab Animal Tech Week poster shown below.

'Paws' To Appreciate Lab Animal Techs



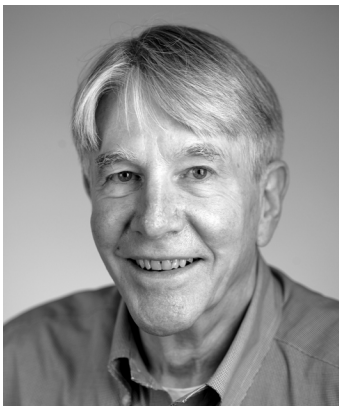
Laboratory Animal Technician Appreciation Week will be celebrated at NIH Jan. 31-Feb. 4. Traditionally, lab animal technicians have been recognized by the annual publication of a poster titled "NIH Celebrates Laboratory Animal Technician Week." The poster is supported by the animal research advisory committee's Animal Awareness Program. In order to honor this community, the committee decided last summer to solicit new themes celebrating everyone involved with laboratory animal care.

The most appealing submissions came from the veterinary medicine section of the National Institute of Environmental Health Sciences. Dr. Terry Blankenship-Paris, chief of the section, explained, "I do a lot of animal rescue work and the events tend to have some kind of wordplay like 'Bark in the Park' and 'Woofapalooza.' And [a local] thrift shop that benefits animals is called 'Retails,' so we immediately went that direction with the poster."

As an award for their theme being chosen, the NIEHS group will receive a mounted and framed poster for display in their facility located in Research Triangle Park, N.C.

There are hundreds of animal care staff, technicians, facility managers and veterinarians supporting the NIH mission. NIH is proud to recognize their dedication.

milestones



Dr. John Hallenbeck will receive the Thomas Willis Award in February.

Stroke Association Honors NINDS's Hallenbeck

Dr. John Hallenbeck, chief of NINDS's intramural Stroke Branch, will receive the American Stroke Association's highest honor, the Thomas Willis Award, at ASA's International Stroke Conference in February. He will deliver the Willis lecture, "Tracks of a Non-Main Path Traveler," on Feb. 9 in Los Angeles.

The award is given annually to a senior investigator who has made outstanding contributions in the field of stroke over a sustained period during his/her career. The award was established in honor of Dr. Thomas Willis, a pioneering physician credited with providing the first detailed descriptions of the brainstem, cerebellum and ventricles along with hypotheses on their functions.

"Through his laboratory and clinical efforts, Dr. Hallenbeck has led the Stroke Branch by example, providing strong mentorship to fellows and staff," said NINDS deputy director Dr. Walter Koroshetz. "In his pursuit of an effective means to protect the brain from ischemic injury, Dr. Hallenbeck developed an innovative immune-tolerizing strategy that should soon be tested in patients at high risk for stroke."

Hallenbeck received his medical degree from the University of Pennsylvania in 1966. After a medical internship and neurology residency at the University of Michigan, he entered the U.S. Navy. At the Naval Medical Research Institute, his research focused on central nervous system decompression sickness and air embolism and later the study of inflammatory and immune mechanisms in acute brain ischemia. In 1983, he was appointed chief of the Navy's neurology training program at the National Naval Medical Center. From 1983 to 1991, he served as professor of neurology and physiology at the Uniformed Services University of the Health Sciences and as vice chairman and chairman for research in its neurology department. He joined NINDS in 1991 as chief of the newly created Stroke Branch.

Currently his lab is studying the cellular regulation of ischemic tolerance and inflammatory and immune mechanisms in the initiation and progression of stroke.— **Shannon E. Garnett**

NCI's Chu Retires After 39+ Years

Dr. Kenneth Chu, chief of the Disparities Research Branch in NCI's Center to Reduce Cancer Health Disparities (CRCHD), retired Dec. 31, 2010. He describes his 39 years and 2 months of government service as a long and winding road.

Four decades ago, he turned his career focus from artificial intelligence and private industry to public service and took a position in the Carcinogenesis Testing Program at the Division of Cancer Cause and Prevention. Chu ended up working in that area for about a decade, co-authoring more than 175 *NCI Carcinogen Bioassay Technical Reports*, the results of which have been used to regulate carcinogenic compounds.

His second decade of service to NCI saw him work in the area of breast cancer and early detection guidelines, at the Division of Cancer Prevention and Control. He published the first paper based on clinical trials that showed mammography and clinical breast examination were beneficial for women ages 40-49. These findings helped lay the foundation for recommendations that mammography screenings begin at age 40 rather than 50.

In his last decade at NCI, Chu nurtured the creation of CRCHD. He provided leadership in the establishment of a number of community-based programs for reducing cancer disparities through outreach, research and training. His major legacy was pioneering cancer health disparities research encompassing not just social sciences, but also basic sciences.

"Ken Chu is one of those extraordinary individuals who, for almost four decades, made seminal observations that are key to our understanding of cancer health disparities research," said Dr. Sanya Springfield, CRCHD director. "He is not only a prolific researcher but, as chief of the Disparities Research Branch, he was also a great mentor. Those who worked with him affirm he helped raise their game to a higher level."

"It's a pleasure to pursue opportunities you perceive to be important. It never feels like work because you're doing what you love," Chu said. "That's the beauty of the NIH atmosphere."

Reflecting on his career, Chu muses, "Science is like sand on a beach. Whatever footprints you make may change over time and may even get washed away as new discoveries are made. It's a humbling experience. You hope you make an impact, but you don't know how long it will last."

Chu hasn't any firm retirement plans yet, "which is not like me to not plan ahead," he laughs. All he knows is that, at a minimum, it will include golf, travel and quality time with his wife, Irene, daughters, Katherine Hickman and Kristine Chu, and grandchildren, Chloe and Haley Hickman. Judging from his past, it will be a retirement with many interesting twists and turns along the way.

CIT Executive Officer Wimsatt Retires

After 31 years at NIH, CIT Executive Officer Kathy Wimsatt has retired from federal service. Her professional progression mirrored her working world: from a clerk to a leadership position; from voluminous paper-based processes to sophisticated technology systems.

A newly minted GS-2, Wimsatt started on New Year's Eve 1979 as a "floater clerk" in Bldg. 1 for the Office of the Director. She discovered that a floater clerk works wherever needed. While she didn't get a desk of her own, she did get the privilege of becoming the "go to" person for NIH associate directors and their staff, a fortuitous start to a career in administration.

Wimsatt soon took on the role of administrative assistant in the Office of the Director. Immersed in management operations, budget and procurement, she met high-level officials and relished the Bldg. 1 family atmosphere.

In 1985, Wimsatt accepted a position as a space management specialist in the former Space Management Branch in ORS—one of the first women hired as such—dealing with leases, construction and renovation projects. The following year, she returned to her budget roots, taking a training position as a budget assistant in the then-combined OD/ORS Budget Office. "It was a true challenge at the beginning," said Wimsatt. "I had so much to learn but was surrounded by great people who had been doing this for many years and shared their wisdom."

After 12 years working as a budget analyst in the OD Budget Office, Wimsatt joined the new Center for Information Technology as a financial management analyst in 1998. She became chief financial officer in 2000 and, in 2004, was named executive officer. Wimsatt has contributed to many CIT initiatives affecting NIH and successfully led the 2009 NIH CFC campaign.

Following her parents and brothers, who worked at NIH at various times since the 1950s, Wimsatt continues her legacy through her son and daughter-in-law, also NIH'ers.

During her career, Wimsatt advised new employees and interns, "You have to work hard and learn something new in your job each and every day. There is always something you could be doing better or processes to be improved. You have to make that happen—it's up to you."

In retirement, Wimsatt looks forward to traveling, enjoying nature, volunteering, learning new things and spending time with her family and friends.

HIV Vaccine Research Leader Johnston Retires from Federal Service

By Laura Sivitz Leifman

After 21 years of distinguished government service, Dr. Peggy Johnston, director of the Vaccine Research Program in NIAID's Division of AIDS, retired at the end of 2010. She leaves behind big shoes to fill.

At her retirement party, Dr. Peggy Johnston (c) is flanked by Sheryl Zwerski (l), acting director of the Prevention Sciences Program in the NIAID Division of AIDS, and Dr. Susan Plaeger, director of the division's Basic Sciences Program.

"She's got it all," said NIAID director Dr. Anthony Fauci. "She is very, very bright, she has an encyclopedic knowledge of the field and she has extremely good judgment in an area that can be controversial. Her service to NIH has been extraordinary."

"She's a giant in the field," added Dr. Seth Berkley, president and CEO of the International AIDS Vaccine Initiative (IAVI).

Colleagues say they will miss Johnston's clear and steady scientific leadership and her insightful advice. "Peggy has a very effective way of deconstructing problems and coming up with possible solutions that take into account what is best for the science," said Dr. Carl Dieffenbach, director of the NIAID Division of AIDS.

Johnston joined NIAID in 1987 as a program officer in the AIDS Program and rose to positions of progressively greater responsibility and scope, becoming deputy director of the Division of AIDS in 1993. She left NIH in 1996 to become IAVI's founding scientific director and first senior vice president for scientific affairs. Drawn back to NIAID by the opportunity to develop its extramural HIV vaccine research program, Johnston returned in 1998 to serve as director of the DAIDS Vaccine and Prevention Research Program (now the Vaccine Research Program). She held this position until her retirement, managing a $351 million research portfolio by 2010.

"I feel fortunate to have had the opportunity to contribute in a small way (most of the time) and in a more significant way a few times to major advances in the fight against HIV/AIDS in this country and globally," Johnston reflected. "I am particularly gratified that NIAID was a key partner with the U.S. Army and others in RV144, an HIV vaccine trial in Thailand that demonstrated for the first time that a vaccine can protect against HIV acquisition."

Regarding her retirement, she said, "I look forward to new opportunities to contribute to the fight against HIV/AIDS with a more flexible schedule, so that I can take more and longer bike rides and perhaps even get a puppy."

This year, Johnston will serve as a consultant to NIAID on several special projects, including the re-engineering of the institute's clinical trials networks.

"We at NIAID are grateful to Dr. Johnston for creating a globally recognized HIV vaccine research program that is well positioned to continue the search for an effective HIV vaccine," said Fauci.

Shown receiving a performance award in an undated photo with NIH Deputy Director for Management Colleen Barros (l) is Grace Walton, a longtime member of NIH's human resources community who died on Dec. 11.

OHR's Walton Passes at Age 54

Grace Walton, lead human resources specialist for staffing and classification supporting the Office of the Director, died on Dec. 11. She was 54. She had spent more than 37 years working in NIH's HR community.

A teenaged Walton started at NIH as a student aide in June 1973. She attended American University and worked here under the Stay-in-School Program. It was in that role that she happened to administer the oath of office to Sara Calhoun when Calhoun began working at the then Division of Research Resources in September 1976. They became friends as well as coworkers and kept tabs on each other.

"In recent years we'd had elder care issues in common," said Calhoun, who now serves as NCRR controlled correspondence coordinator. "We were at one time both taking care of an ill parent and we would chat about things like that. Grace was very well loved and very kind. She always had a smile on her face. She was also very competent. Her [executive officer] relied on her for all sorts of advice."

In 1979, Walton took a position as a personnel clerk. She became a personnel management specialist in April 1982, serving DRR. In 1990, she became an HR team leader for the National Center for Research Resources. Then came department-wide HR consolidation in 2002. Various changes in responsibilities and duties resulted, but Walton's commitment to HR never wavered. She had supported OD in several HR capacities since December 2006, serving as acting chief for Branch B from April to October 2008.

"I began working with Grace in 2003 when I became her branch chief," said Lori Thompson, former Branch B chief. "Over time, she became my deputy and we worked very closely together until I left that position in April 2008. I couldn't have asked for a better deputy both for her technical abilities, her personal skills and her unwavering support. The time I had with Grace was a gift and I am so proud to have called her a friend. She was a kind spirit who truly saw the good in others. Her life was devoted to taking care of others. That's a rare and special quality."

Sean Stroud of Branch D in the OHR Client Services Division knew Walton for 23 years and worked with her for more than a decade. He said he and other coworkers marveled that they always heard the same comments from colleagues and clients who had encountered Walton.

"Everyone—every single person—told us the same story," he said. "'Grace is so friendly. She's so nice. She's so helpful.' To me, that says she was very consistent in the way she lived her life."

According to Marlene Harper, another Walton coworker in the Client Services Division, Walton was the go-to person for any institutional knowledge.

"Whenever I'd have a question about some issue, especially something that may have happened years ago, I was always told, 'Check with Grace,'" said Harper. "If Grace didn't know the answer right off, she'd research it for you. She was always extremely helpful. Grace was truly one of the nicest people I have had the pleasure to work with at NIH. She had a fantastic sense of humor and could always lighten the moment."

Another colleague of Walton's, Robin Stephens, lead HR specialist in Branch B, described working with her: "Grace was like sunshine, her presence was always so warming. She was so patient and never said a harsh word toward or about anyone. She always saw the brighter picture…She was the glue that kept it and us together. She was our shield that protected us from ourselves and others. She was our teacher who showed us grace and professionalism. Grace had so much knowledge of HR and the history behind each case. Truly she's irreplaceable."

Over the course of her career here, Walton received nine Special Act Awards. She spent vacations volunteering in her church, teaching at vacation Bible schools and giving to others.

Survivors include a sister, Marilyn Thomas of the NIH Office of Extramural Research, and a brother, Douglas Walton.

LI Mourns Research Biologist Rinker

Austin Granvel Rinker, Jr., 55, a research biologist in NIAID's Laboratory of Immunology, succumbed to cancer on Dec. 7 at Washington County Hospital, Hagerstown.

Rinker served as a research biologist in the lymphocyte biology section of the Laboratory of Immunology from May 1991 until his death. He was a veteran of the U.S. Army National Guard as well as the U.S. Army and a former deputy sheriff in Washington County. He earned an A.A.S. degree in law enforcement from Hagerstown Community College in 1976, a B.S. degree in sociology from the University of Baltimore in 1978, a B.S. degree in

biology from Frostburg State College in 1981 and an M.S. degree in biomedical sciences from Hood College in 1984. Rinker also did postgraduate studies at the University of Toledo and Wayne State University.

During his time at NIH, he conducted molecular analyses of the immune response. He was an expert on site-directed mutagenesis and helped several generations of postdoctoral fellows advance their research by providing critical expression constructs. He was meticulous in his work, signing his notebooks at the end of each day. His careful attention to detail ensured that several decades of stored DNA samples in the lymphocyte biology section were maintained and inventoried so they could be effectively used not only within the laboratory, but also by hundreds of scientists around the world to whom he supplied reagents in a timely manner.

Rinker's true passion, however, was the emergency medical services (EMS) of Washington County. This activity started 42 years ago, when he became a junior member of the Community Rescue Service (CRS). Rinker ("Rink" to his friends) was a household name to the EMS family in Washington County. He became an integral part of the development of the Cadet Squad Program back in the early years at CRS.

He served CRS in many different roles and was part of the team that earned CRS its status as Emergency Care World Champions. He served as chief of operations of Co. 28 of Washington County Civil Defense (now Washington County Special Operations) and was an EMS instructor with the University of Maryland, the Maryland Fire and Rescue Institute and the Maryland department of natural resources, as well as adjunct faculty coordinator of the Paramedic Emergency Services Program at Hagerstown Community College for the last 10 years.

During his career in emergency services, Rinker was responsible for training most of the EMS personnel operating in and around Washington County. He not only published in scientific literature through his work at NIAID, but also was the author of two chapters in a textbook used by EMS students. If you were an EMT or paramedic in Western Maryland, you came in contact with Rinker at some point during your training. Whether in the field, classroom or during an exam, Rinker was always present, serving as one of the last unpaid volunteer paramedics in Washington County.

He is survived by his wife of 23 years, Linda J. Rinker, and his stepmother, Katherine Rinker of Chambersburg, PA.—**Ronald Germain and Patrick Smith**

NIAMS Remembers White

By Sara Rosario Wilson

Jenea Latrell White, 34, a junior administrative officer in the Administrative Management Branch of NIAMS's Office of the Director, passed away suddenly on Oct. 11.

"Jenea was the epitome of an upbeat, positive, bright and friendly person," said NIAMS director Dr. Stephen Katz. "She was considered an important part of the NIAMS family and will be greatly missed."

Despite a lifelong physical disability, White lived a full life without allowing her limitations to hold her back, never complaining and always encouraging everyone around her. She often said she did not want to be treated differently than anyone else and operated with a high level of professionalism.

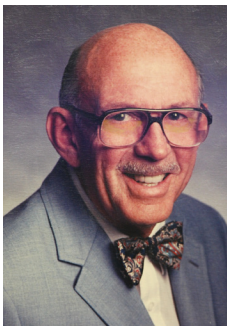
White graduated from Bowie State University in 2002 with a B.S. degree in psychology. The Stay-in-School Program brought her to NIH to work in the NIAMS Extramural Research Program and to assist with the NIAMS Advisory Council. After a brief stint at NCI, she found her way back to NIAMS in 2005 to work in the Office of the Director. She stood out for her ability to juggle multiple tasks while providing exemplary customer service.

"Jenea did everything with excellence," said her NIAMS supervisor, Valerie Green, AMB chief. "She wanted to do it all and did it with a smile."

White also was active outside the institute and worked tirelessly on the NIH Diversity Council, becoming well known by many employees. "It was an honor to be around her," Green said. "She touched so many people at NIH."

During her youth, White participated in the Special Olympics U.S.A. National Games. Her love of sports turned her into a big fan of the Washington Mystics.

White's ability to remain joyful and focused on helping others gained her great respect from colleagues. She is survived by her mother Jessie P. White, sisters Kisha White and Angela Jernigan, grandfather Allen Perry and a host of other relatives.



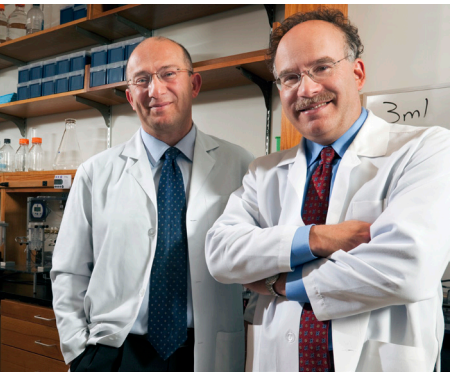
Harting, NICHD's Second Director, Dies

Dr. Donald Harting, who served as NICHD director from 1965 to 1966, died of a heart attack recently at age 88. At a ceremony marking the founding of the institute's Hall of Honor, Harting explained that he was responsible for implementing the plans for the institute that were developed by its first director, Dr. Robert Aldrich.

Harting had previously served as NICHD's assistant director and acting director. He also served as health officer for Worcester County, Maryland. He is perhaps best known, however, for founding the Delmarva Education Foundation, which seeks to improve educational opportunities for residents of the Delmarva Peninsula.

"When he was director for NICHD, he became particularly aware of the role education played in human development," his daughter, Katherine Harting, said in an article in *DelmarvaNow*. "He saw the education levels of residents in this area and income levels and made a connection. He said, 'People helped me go to school and that made a huge difference.' He was giving back."

digest



NIBIB grantees Dr. Mehmet Toner (l) and Daniel Haber of Massachusetts General Hospital are co-primary investigators of the NIBIB HB-Chip Quantum Grant.

Microfluidic Device of NIBIB Grantees Moves Toward Clinical Applications

NIBIB "Quantum Grant" investigators at Massachusetts General Hospital have successfully developed a test capable of detecting a single cancer cell among the billions of normal cells in a simple blood sample. Four leading cancer centers will start studies using the experimental test later this year to study different cancers.

The microchip device, known as the HB-Chip, enables the isolation of tumor cells that are circulating in the bloodstream; subsequent characterization can potentially determine the type, severity and aggressiveness of a wide range of cancers. Detecting the presence of these tumor cells in blood samples is analogous to a "liquid biopsy" of the most critical of cancer cells—those that are in the process of spreading via the bloodstream. Their presence signals early events leading to metastasis and also serves as a monitor for treatment efficacy. The device has the potential to revolutionize the management of care in cancer patients.

Importantly, this technology will enable the characterization of subtypes of cancer based on their molecular signatures. Doctors typically give a drug or radiation treatment and then do a CT scan several months later to look for tumor shrinkage. A test that can gauge success or failure rapidly, through simple monitoring of cancer cells in the blood, could dramatically improve patients' options for the identification of a successful therapy. Scientists now recognize that many cancers such as breast, prostate or lung cancers are not monolithic diseases. There are distinct subtypes that may require targeted, personalized treatment that can adapt over time.

NIH-Led Study Identifies Genetic Variant That Can Lead to Severe Impulsivity

A multinational research team led by scientists at NIH has found that a genetic variant of a brain receptor molecule may contribute to violently impulsive behavior when people who carry it are under the influence of alcohol. A report of the findings, which include human genetic analyses and gene knockout studies in animals, appeared in the Dec. 23 issue of *Nature*.

"Impulsivity, or action without foresight, is a factor in many pathological behaviors including suicide, aggression and addiction," said senior author Dr. David Goldman, chief of the Laboratory of Neurogenetics, NIAAA. "But it is also a trait that can be of value if a quick decision must be made or in situations where risk-taking is favored."

In collaboration with researchers in Finland and France, Goldman and colleagues studied a sample of violent criminal offenders in Finland. The hallmark of the violent crimes committed by individuals in the study sample was that they were spontaneous and purposeless.

"We conducted this study in Finland because of its unique population history and medical genetics," Goldman explained. "Modern Finns are descended from a relatively small number of original settlers, which has reduced the genetic complexity of diseases in that country. Studying the genetics of violent criminal offenders within Finland increased our chances of finding genes that influence impulsive behavior."

Scientists Reveal How Biological Activity is Regulated in Fruit Fly, Roundworm Genomes

Scientists on Dec. 22 published catalogs of the fruit fly and roundworm's functional genomic elements: DNA sequences in the genome that carry the instructions and determine which genes are turned on and off at various times in different cells.

Initially sequenced as part of the Human Genome Project, the genomes of the fruit fly and the roundworm are powerful models for understanding human biology and disease, as many functional genomic elements have been conserved across the vast evolutionary distances separating each organism. Scientists can now study functional genomic elements in the fruit fly and roundworm that are also present in humans to better understand how the human genome works in health and disease.

"These findings will enable scientists everywhere to carry out experiments in fruit flies and roundworms to better understand the relationship between molecular and biological activities in these animals," said NHGRI director Dr. Eric Green. "What we learn from these model organisms will contribute greatly to our understanding about the genomic basis of health and disease in humans."

The papers reporting these new findings appeared in the Dec. 24 issue of *Science* and are authored by members of the model organism ENCyclopedia Of DNA Elements (modENCODE) Consortium, which is funded by NHGRI.

volunteers

The phone numbers for more information about the studies below are 1-866-444-2214 (TTY 1-866-411-1010) unless otherwise noted.

Severe Asthma Study for Adults, 18-75

You may be eligible to participate in a clinical research study with the medication Actos. The goal of the study is to determine if Actos is effective for treating severe asthma. The study will last 48 weeks and there are a total of 15 visits required. In order to participate, you must have a diagnosis of severe asthma for at least 1 year, have not smoked cigarettes within the past year and do not have a history of emphysema or sarcoidosis. Travel assistance may be provided consistent with NIH guidelines. Refer to study 09-H-0244.

Seeking Patients with Physical Induced Hives

Do you or someone you know develop hives when coming into contact with cold, heat, pressure or other exposures? This could signal physical urticaria. If you or a family member are between the ages of 6 months and 65 years old and a physician has diagnosed this condition, the patient may be eligible to participate in a study with the National Institute of Allergy and Infectious Diseases. The study will explore the body's role in the inflammatory response that causes hives. Participants will be required to travel to NIH and a short overnight stay may be required. Refer to study 09-I-0126. Se habla español.

Loa Loa Study

Have you ever traveled to or lived in central or western Africa for longer than 1 month? Have you or someone you know experienced worms moving along the white part of the eye? Are you between 18 and 65 years old? NIAID is seeking volunteers to participate in a research study evaluating the effectiveness of reslizumab in reducing the side effects of the standard drug therapy used to treat Loa loa. All participants will be required to travel to NIH for an overnight stay. All study-related tests or treatment are provided at no cost. Refer to study 10-I-0101. Se habla español.

Januvia Study

Volunteers are needed for a study examining immune function in healthy volunteers given short-term treatment of sitagliptin (brand name Januvia). Investigators wish to determine if and how sitagliptin alters immune function. If you are 18 years or older and healthy, consider participating in this study. All study-related tests are provided at no cost. Compensation is provided. Refer to study 09-DK-0055.

Hepatitis B Study

Did you receive the hepatitis B vaccine or did you recover from acute hepatitis B more than 10 years ago? Would you like to know if you still have protective antibody levels? Consider participating in the Hepatitis B Vaccine Immunity Study. This study consists of one outpatient clinic visit for a blood draw and a short research questionnaire. Participants must have been 18 years of age or older and younger than age 60 when the hepatitis B vaccine was administered. The vaccine must have been given prior to the year 2000. Individuals who have a history of chronic HBV infection or those who did not receive all 3 doses of HBV vaccine are not eligible for participation. For more information, call (301) 435-6121. Refer to study 10-DK-0187. Compensation is provided.

At his retirement from federal service in 2002, NICHD staff presented Steve Parris with this illustration commemorating his service. A framed print hangs in the NICHD copy room.

NICHD's Beloved Messenger Passes Away

Steven M. Parris, perhaps the most steadfast, dependable public servant ever to walk the corridors of the National Institutes of Health, has passed away from natural causes.

A resident of Gaithersburg, he began his federal service in 1965, as a messenger at the National Institute of Child Health and Human Development. His tenure spanned several NIH directorships and numerous changes in administration. Through wind and rain, ice and snow, Parris always reported to work on time, seldom took a day off and always made sure his packages and letters arrived at their intended destinations.

"Steve was highly regarded throughout NIH," said NICHD director Dr. Alan Guttmacher. "His perseverance and unassuming dedication inspired everyone to do their best."

For the most part, Parris was a private person focused on his work, recounted his colleague, George Gaines, chief of NICHD's Office of Program and Public Liaison. He had a keen interest in finance and investment, often informing his coworkers on developments in the stock market. During his infrequent days off, he would visit his parents at their home on the Chesapeake Bay, where he enjoyed boating and fishing with family and friends.

He retired from NICHD in July 2002. After vacationing briefly on the Chesapeake Bay, he returned to NICHD in 2003 to resume his duties on a contract basis for 7 years. He left again in 2010 because of declining health.

"Everyone on our hallway looked forward to Steve and his daily visits," Gaines said. "Steve set an example for all of us and we will miss him."

He is survived by his parents, Jim and Bernice Parris; two brothers and a sister, and several nieces and nephews. Contributions may be made in his name to Twinbrook Baptist Church, 1001 Twinbrook Pkwy., Rockville, MD 20851, or to Autism Speaks, www.autismspeaks.org.

There will be a celebration of Parris's life and long NIH career, followed by a reception, on Tuesday, Mar. 8 at 11:30 a.m. in Lipsett Amphitheater, Bldg. 10.

Photo Opportunity

NLM Marks 175th Anniversary In a Big Way

By Shana Potash

Talk about your group photo! The National Library of Medicine marks its 175th anniversary this year. As part of the celebration, hundreds of workers recently formed the number 175 and posed for a commemorative photo.

"It was a wonderful event, and nice to see how many people came out for it," said NLM director Dr. Donald Lindberg.

Assembling the staff and creating the photo was a feat that involved logistics, art, aerial bravery and the ability to stand still for 10 minutes.

"I've done photo shoots before, but never one this big," said Andrew Pettiti, the graphic artist charged with designing the footprint of the vast "175" on the pavement in front of the library.

To do so, he surveyed that area and carefully calculated the dimensions to ensure the numbers would look crisp when photographed. He also calculated how many people would be needed to form the figures. His design was 48 feet wide and 36 feet long and required 360 people standing shoulder-to-shoulder. Enthusiasm was so high, and turnout was so large, people filled the 175 as well as the steps leading to the library.

"This is a great way to get the staff together to celebrate the library's anniversary," said technical information specialist Elisabeth Unger, as she waited for instructions for the photo shoot.

Those instructions came in the form of color-coded choreography created by the NLM Office of Administrative and Management Analysis Services, which handled most of the logistics. The numbers were drawn in chalk on the driveway in front of the library. As people showed up, they were handed a colored Post-It note indicating in which number they were to stand.

Felicia Torchiano, a support services specialist, herded the crowd into place and encouraged people to stand closer together by repeatedly shouting, "Love thy neighbor, love thy neighbor." Once in position, the crowd was instructed to stand still for 10 minutes.

The library got aerial support for the photo from the NIH Fire Department. Photographer Jessica Marcotte was raised high above the crowd thanks to a fire truck tower ladder. The whole process from roundup to wrap-up took about 30 minutes.

The picture, taken in December, will be featured on a special anniversary web site highlighting the library's evolution and information innovation.

NLM started in 1836 as a few books in the Office of the Surgeon General of the Army. Today part of NIH, NLM is the world's largest medical library and the developer of electronic information services, delivering trillions of bytes of data daily to millions of people around the world.

"It's great to be part of a grand event. We're part of history," said Aaron Navarro, assistant director for program development in NLM's Lister Hill National Center for Biomedical Communications.

"It's a once in a lifetime opportunity," quipped librarian Elizabeth Norton. "I won't be here for the next 175th, so I better do it now."

Assembling the staff and creating the photo was a feat that involved logistics, art, aerial bravery and the ability to stand still for 10 minutes.

PHOTO: JESSICAMARCOTTE.COM